

Amendments to the Specification:

Please amend the specification as follows:

On page 1, a new heading and a new paragraph [0002] are inserted as follows (paragraph numbering after paragraph [0002] through paragraph [0009] has changed to coincide with insertion):

CROSS-REFERENCE TO RELATED PATENT APPLICATIONS

[0001] The present application is a national stage application of PCT Application No. PCT/US2003/033728, filed October 24, 2003, which claims priority to United States Provisional Patent Application No. 60/421,181, filed October 25, 2002.

On page 3, paragraph [0009] now consists of the combination of old paragraph [0008] and old paragraph [0009] as follows:

[0009] Although various references describe boron-containing additives that provide lubricity to metal-forming or cutting lubricant compositions, conventionally known additives are based on compositions that require complex formulations and lengthy preparation and therefore are not cost effective as lubricants. Also, large amounts of boron additives are needed in order to achieve sufficient lubricity. Some of the lubricant compositions contain organic and/or petroleum based products that are flammable and difficult to clean and/or dispose after the metal-forming or machining operations. Their incorporation into carrier fluids would likely require complex processing steps and hence be prohibitively expensive. [0009]A need therefore remains for a readily available product that is cost effective, easy to apply, use and/or dispose.

On pages 4 and 5, paragraph [0021] has been divided into two paragraphs by adding paragraph number [0022] as follows (paragraph numbering after paragraph [0022] through the end of the specification has changed to coincide with this paragraph division):

[0021] Boron and/or boric acid derivatives dissolved or dispersed in an n-alcohol solution can also ~~[[be]]~~ produce~~[[d]]~~ a uniformly thick and strongly bonded coating on applied surfaces. They can be brushed or sprayed on the surfaces of metallic work pieces. Alternatively, metallic work pieces can be dipped into n-alcohol solution containing boric acid and/or boron derivatives. The films that form on the surfaces protect them against wear and provide easy shear or superior lubrication.

[0022] Fluids manufactured according to the present invention effectively reduce friction, prevent galling and severe wear problems on cutting and forming tools. Such fluids may also effectively dissipate heat and hence keep the cutting edges of tools, cool and sharp. The increase in lubricity that occurs upon addition of the boric acid or boron-based compounds of the invention results in lower wear in forming dies, minimal transfer of metal to die surfaces and substantially enhanced cutting tool and die life. The surface of cut or of formed work pieces becomes very smooth, which may eliminate secondary grinding and/or polishing. The new formulations based on the uses of boric acid and/or boron-based additives provide a cleaner environment, at a lower cost relative to other additive technologies currently in use for metal cutting and/or forming operations.

Since the paragraph numbers have changed, a complete substitute specification is being submitted for the examiner's consideration.